

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1-180. (Cancelled)

181. (Presently Amended) A composition comprising an isolated conformational epitope of an amyloid a protofibrillar aggregate which a) forms in a human or animal and b) contributes to amyloid disease fibril formation.

182. (Presently Amended) A composition according to claim [[1]] 181 wherein the composition comprises a peptide.

183. (Presently Amended) A composition according to claim [[1]] 181 wherein the epitope composition is conformationally constrained.

184. (Presently Amended) A composition according to claim 181 wherein the peptide epitope is selected from the group consisting of SEQ ID NO. 1, SEQ ID NO. 2, SEQ ID NO. 3, SEQ ID NO. 4, SEQ ID NO. 5, SEQ ID NO. 6, SEQ ID NO. 7, SEQ ID NO. 8, SEQ ID NO. 9 and mixtures thereof.

185. (Previously Presented) A composition according to claim 183 wherein the epitope is constrained on a curved or flat surface.

186. (Previously Presented) A composition according to claim 185 wherein the surface is selected from; a) a protein, b) a protein that comprises a pleated sheet, c) comprises a surface of a particle and a sheet.

187. (Presently Amended) A composition according to claim 180 185 wherein the composition is chemically bound to the a-support surface.

188. (Presently Amended) A composition according claim 180 181 wherein the epitope composition is constrained on a support surface that comprises a material selected from; gold, zinc, cadmium, tin, titanium, silver, selenium, gallium, indium, arsenic, silicon, mixtures thereof and combinations thereof.

189. (Presently Amended) A composition according to claim 180 181 wherein the amyloid protofibrillar aggregate has a molecular weight in a range of about 1 kDa to about 100,000,000 kDa.

190. (Presently Amended) A composition according to claim 180 181 wherein the composition comprises a conformational epitope of an amyloid a-protofibrillar aggregate that comprises five or more monomers.

191. (Presently Amended) A composition according to claim 180 181 wherein the composition comprises a conformational epitope of a toxic species of an amyloid a-protofibrillar aggregate.

192. (Presently Amended) A diagnostic kit useful for detecting a disease characterized by amyloid deposits, said kit comprising a composition an antibody that binds to a conformational epitope according to claim [[1]] 181.

193. (Previously Presented) A diagnostic kit according to claim 192 wherein the amyloid fibril to which the conformational epitope contributes is substantially free of the epitope.

194. (New) A composition according to claim 185 wherein the epitope is chemically bound to the surface.

195. (New) A composition according to claim 194 wherein the epitope comprises a peptide and a C terminus of the peptide is bound to the surface.

196. (New) A composition according to claim 195 wherein the C terminus is bound to the surface by a carboxy thiol linkage.

197. (New) A composition according to claim 196 wherein the surface comprises a gold surface.

198. (New) A composition according to claim 197 wherein the gold surface comprises colloidal gold.

199. (New) A composition according to claim 181 wherein the epitope comprises an epitope of A β .

200. (New) A composition according to claim 181 wherein the epitope is coupled to gold.

201. (New) A composition according to claim 200 wherein the epitope comprises a peptide and a C terminus of the peptide is coupled to gold.

202. (New) A composition according to claim 201 wherein the gold comprise colloidal gold.

203. (New) A composition according to claim 185 wherein the surface comprises

a surface of a film.

204. (New) A composition according to claim 185 wherein the surface comprises a surface of a sheet.

205. (New) A composition according to claim 217 wherein the surface comprises a surface of a pleated sheet.

206. (New) A composition according to claim 185 wherein the surface comprises a surface of a protein.